# MATERIAL STANDARD

STANDARD NUMBER: **7272.2** 

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DATE: October 18, 1985 REV: February 18, 2003

## ROPE, SYNTHETIC FIBER

**Scope:** This specification covers heavy-duty synthetic fiber rope, to be used for pulling lines, hand lines, bull lines, capstan work for stringing conductor, hoisting transformers, and general purpose, heavy-duty utility work.

### **Description:**

- 1. Three-strand, twisted, standard right-hand lay.
- 2. The rope shall be made of a combination of monofilament and multifilament polyester (polyethylene terephthalate), and polyethylene and polypropylene (olefins) fibers.
- 3. The basic color of the rope shall be white (except 1/4" barrier tope 727230).

**Characteristics:** The rope shall have good abrasion resistance, high dielectric strength, a low-moisture absorption rate, and be impervious to rot, mold, mildew, and fungus growth. The rope shall also be inert to most chemicals, including acids, alkalies, and organic solvents.

**Packaging:** The rope shall be put up on reels with a minimum of 1,200 feet unless otherwise specified on the purchase order. Each length shall be continuous throughout, containing no splices, hockles, kinks, or loose ends. The ends of the rope shall be secured to prevent fraying or unlaying of the strands.

## Specification:

| _               | Rope Dim. (Approx.) |            | Lbs. Per           | Avg. Break        | Recommended           |        |
|-----------------|---------------------|------------|--------------------|-------------------|-----------------------|--------|
| Stock<br>Number | Dia., In.           | Circ., In. | 100 Feet **Density | Strength,<br>Lbs. | Working Load,<br>Lbs. | Lay    |
| 727230*         | 1/4                 | 3/4        | 1.2                | 1050              | 105                   | _      |
| 727232          | 7/16                | 1-1/4      | 4.9                | 3900              | 390                   | Medium |
| 727233          | 1/2                 | 1-1/2      | 7.5                | 5400              | 600                   | Medium |
| 727234          | 3/4                 | 2-1/4      | 13.2               | 9800              | 1400                  | Firm   |
| 727239          | 1                   | 3          | 24.2               | 17000             | 2428                  | Firm   |

<sup>\*</sup> Stk. No. 727230 - 1/4" barrier rope **shall be yellow with one strand of black** and may be monofilament polypropylene.

Stock Unit: FT

#### **Approved Manufacturers:**

Bevis Continental Western (Stock No. 727230 only, part no. 301015)

The Cordage Group Jackson
Tubbs U.S. Rope

Wall Wellington Puritan, Inc.

| ORIGINATOR | STANDARDS COORDINATOR | STANDARDS SUPERVISOR | UNIT DIRECTOR |
|------------|-----------------------|----------------------|---------------|
| LendHorn   | Charles I. Graffer    | John Clima           | - Harder Juj. |

<sup>\*\*</sup> A specification sheet indicating all of the above specifications, or a letter of compliance to the above specifications, and a description of the makeup of the rope; i.e., polyester, polypropylene, or polyethylene fiber construction shall accompany each bid. At time of receipt, acceptance of material shall be subject to verification of compliance to the pounds-per-100-feet requirement. Material found to be less than 95% of the table value shall be rejected and replaced at no cost to Seattle City Light.